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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kyung-Geun Lee

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EXAMINER

LAMB, CHRISTOPHER RAY

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/624,634	Applicant(s) LEE ET AL.	
	Examiner Christopher R. Lamb	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 22 objected to because of the following informalities:
 - a. The phrase "recording an address of an area containing most recently recorded data in a predetermined area" has several problems.
 - i. It is not grammatically correct: there should be an article before "most recently recorded data."
 - ii. It is confusing. It is not clear if the address is recorded in the predetermined area, or if it is the data that was recorded in the predetermined area.
 - b. There is a lack of antecedent basis for "the most recently recorded drive data." No "drive data" has been previously referred to in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-15, 17, 19-20, 25, and 28-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Tasaka et al. (US 2003/0151994 A1).

Regarding claim 1, Tasaka discloses an optical information storage medium, comprising: a user data area (Fig. 2: "DATA AREA"); and

an area other than the user data area, comprising: a reproduction-only area (Tasaka only describes the recordable areas, but this is inherent: Tasaka discloses in paragraph 256 that the disc is based on the DVD-R standard, which has a reproduction-only area. Alternatively, since the disc of Tanaka is not rewriteable, any area that has already been written to is a reproduction-only area); and

a recordable area (Fig. 2: "RMA" and "LEAD-IN") wherein new data about a disk state is recorded in the recordable area every time a recording of user data is stopped (paragraph 81).

Regarding claim 2, Tasaka discloses wherein the new data about the disk state includes an address of an area containing newly recorded optimum power control data (paragraph 292).

Regarding claim 3, in Tasaka the new data about the disk state is recorded in the recordable area of a lead-in area (the term "lead-in" as used by the applicant corresponds to three areas in Tasaka: the PCA, the RMA, and the LEAD-IN visible in Fig. 2).

Regarding claim 4, in Tasaka when new data about the disk state is updated, the new data about the disk state is recorded in an area next to an area containing most

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recently recorded disk state data (apparent from Fig. 3: each new information section is next to the one before it).

Regarding claim 5, the new data about the disk state is recorded as a combination of bits of at least one byte (in Fig. 3 there is clearly more than a byte worth of information).

Regarding claim 6, in Tasaka the recordable area where the new data about the disk state is recorded is a lead-in area (see claim 3).

Regarding claim 7, in Tasaka when new data about the disk state is updated, the new data about the disk state is recorded in an area next to an area containing most recently recorded disk state data (see claim 4).

Regarding claims 8-14, they are method claims corresponding to the optical information storage medium of claims 1-7. All elements of these claims have already been addressed with regards to the previous claims.

Regarding claim 15, in Tasaka the recordable area comprises an optimum power control zone recording data for optimal power control (paragraphs 291-292); a disk zone recording data about the disk states (this could be any of the PCA, RMA, and lead-in areas, as they all contain data about the disk state); and a drive zone recording drive-related data (paragraph 278; the drive "zone" of Tasaka is divided up into scattered regions, part of a larger section written each time recording takes place, but together they still constitute a zone).

Regarding claim 17, it is a method claim corresponding to claim 15, and is rejected for the same reasons.

Regarding claims 19-20 and 25, all elements positively recited have been discussed with regards to claims 1-18. No further elaboration is necessary.

Regarding claim 28, Tasaka discloses a method of organizing a recording of updated data on an optical information storage medium, comprising:

recording new disk state data in a different area than present disk state data (visible in Fig. 3); and

recording data representing the possibility of additional recording after completion of recording is recorded (it records the address information associated with a recording, paragraph 81, the address information will tell whether there is any room for additional recording),

wherein new data about a disk state is recorded in the recordable area every time a recording of user data is stopped (paragraph 81).

Regarding claim 29, in Tasaka the different area is an area next to the area containing most recently recorded data (apparent from Fig. 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 16, 18, 21-24, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tasaka et al.

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Regarding claim 16, Tasaka discloses an optical information storage medium as discussed above.

Tasaka does not expressly disclose "wherein each of the disk zone and the drive zone is comprised of 1000 or more physical clusters."

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the disk zone and the drive zone comprised of 1000 or more physical clusters.

The motivation would have been: optimization in the course of routine engineering of the disk and drive zone size. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in claim 16 is considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding claim 18, it is a method claim corresponding to claim 16, and is rejected for the same reasons.

Regarding claim 21, Tasaka discloses an optical information storage medium as discussed above. Tasaka further discloses that the data about the disk state comprises:

- address of an area containing new optimum power control data (paragraph 292),
- address of an area where the last user data has been recorded (paragraph 269: Tasaka does not specifically disclose that the data recorded in the lead-in is address data, but that is inherent, as the well-known purpose of the lead-in area is to record the address data),

- data representing whether additional recording is possible after the user data is recorded (this can be determined from the recording addresses stored in the management area: since the recordable space is a fixed size, the end address of the previous recording is enough to tell if any more recording is possible).

Tasaka does not specifically disclose that the data about the disk state comprises an "address of an area where the last drive information has been recorded." Instead, Tasaka directly records the drive information in the data about the disk state (paragraph 278).

However, Tasaka does disclose that the power information can be either recorded directly as the data about the disk state, or recorded elsewhere with just the address of the power data recorded as data about the disk state (paragraph 292). Tanaka discloses that this frees up space in the data about the disk state, allowing more

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recording histories to be recorded (paragraph 292). This reasoning applies equally well to the drive information.

Thus it would have been obvious to one of ordinary skill in the art to modify Tasaka to include wherein data about the disk state comprises an address of an area where the last drive information has been recorded

The motivation would have been to allow more recording histories to be stored.

Regarding claim 22, it is rejected in light of the modification of Tasaka used to reject claim 21.

Tasaka discloses a method of accessing an area on an optical storage medium where new data is to be recorded (paragraph 313), comprising:

predetermining a recordable area of the optical storage medium (show in Fig. 2);

recording an address of an area containing most recently recorded data in a predetermined area (as discussed above, the modified Tasaka records the address of the drive data); and

reproducing the recorded address of the area containing the most recently recorded drive data (paragraph 317; reading the RMD would include reading the address of the drive data in the modified Tasaka).

Regarding claim 22, the most recently recorded data is drive data, as noted above.

Regarding claim 24, Tasaka discloses recording data representing at least one of a possibility and an impossibility of additional recording in the predetermined area

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(whether more data can fit in the predetermined area can easily be determined from the address of the data recorded there, which Tasaka records as discussed above).

Regarding claims 26 and 27, they are similar to claims 16 and 21, respectively, and are rejected for the same reasons as those claims.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (572) 272-5264. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CRL 3/31/06


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